

US Geological Survey
Broad Agency Announcement for 3D Elevation Program (3DEP)
G17PS00746 / G17AS00116
Frequently Asked Questions
Last Updated: September 22, 2017
Updates to Questions 1.8 - 1.9 2.9 - 2.11, 3.6 - 3.7, 4.6 - 4.8

1. Proposal Submissions

1.1 Question:

After a submitting a proposal, what type of confirmation does the applicant receive to know that the submission has been received?

1.1 Response:

Acquisition proposals (for projects to be contracted through the USGS GPSC) must be submitted electronically to the Contracting Officer Vickie Floyd at gs_baa@usgs.gov. Applicants will receive a quick confirmation of their submission, generally within 1 week of the date of submission as well as an official acknowledgement of the receipt by the Contracting Officer immediately following the closing date of the announcement.

Financial assistance (cooperative agreements) proposals (for projects being acquired through the applicant's contract) must be submitted electronically through the grants.gov portal. To apply through the grants.gov portal, go to <http://www.grants.gov/apply>. Applicants will receive an automatic response from grants.gov acknowledging that your application was successfully submitted to grants.gov. In addition, the applicant will receive an official acknowledgement of the receipt by the Contracting Officer immediately following the closing date of the announcement.

1.2 Question:

If an acquisition is planned for the upcoming 2017-2018 winter season, will submitting a proposal earlier than the October 20, 2017 deadline increase the chances of an approval/denial notification closer to the initial November 15, 2017 date?

1.2 Response:

The 3DEP Team does not begin evaluation of proposals until after the October 20, 2017 deadline. At that point in time all proposals will be evaluated and ranked. The proposed submission window is not considered when ranking the proposals, HOWEVER once proposals have been ranked, the USGS will notify those applicants with time sensitive submissions as early as possible in the notification cycle. It is important to note that final award is based on the availability of funding.

1.3 Question:

During the August 10th public webinar the 3DEP team noted that over the last three years the average BAA award has covered approximately 35% of the total project cost. What is the average rate of awarded applicants? For projects that have not been chosen for funding, can you highlight some of the common reasons a project may not receive funding.

1.3 Response:

In FY17, the BAA provided funding to support 80% of the requests. It is important to note:

- the acceptance rate has been going up as the stakeholders become more familiar with and structure their submissions to align with the criteria for selection as defined in Section VI. Proposal Review Information A. Criteria of the solicitation
- the 3DEP program reserves the right to negotiate with the applicant on the scope of a project should the request exceed the available funding
- Project support is based on the availability of funding. All projects are scored and ranked based on the stated criteria. The program's ability to support all FY18 projects recommended for award will be based on the final FY18 budget.

Every year we have a number of projects that are not selected for award. The final score of a project is the sum total of the score for the individual criterion. As noted in section VI. Proposal Review Information of the solicitation, *"Each proposal will be evaluated based on the overall value and benefit to the government based on project location and areal extent of proposed data acquisition, cost realism (cost per square mile for defined geographic area), cost share (funds contributed by applicant), maturity of applicant's proposal and designated funding, technical approach and past performance as applicable and related to the subject of this BAA". "The most important factors are project location, geographic overlap with areas identified by Federal agencies as areas of interest for lidar acquisition, project cost and cost share (funds contributed by applicants) and technical approach. These factors are equally valued. Secondary factors include areal extent and maturity of applicant's proposal and (maturity of) designated funding sources. Past performance is the factor with the least weight."*

With regards to unsuccessful applicants, at the end of each BAA cycle the program provides feedback to all unsuccessful applicants. The feedback is relative to the criteria as stated in the BAA. Applicants who take note of the opportunities to modify their submissions to align their projects with the published criteria have a greater opportunity of success in the next BAA cycle.

1.4 Question:

What percentage of awardees are new applicants in general each cycle?

1.4 Response:

In FY17, the percentage of applicants receiving awards was approximately 50% new and 50% returning applicants. The returning applicants are generally those who have state or regional plans and are strategically working across their entire area of interest, acquiring a portion of their entire AOI each year.

1.5 Question:

If you plan on using GPSC is it necessary to complete past performance?

1.5 Response:

Applicants choosing to make use of the services of the [Geospatial Products and Services](#) (GPSC) Suite of Contracts do not need to complete the *Technical Evaluation* component of Attachment A: Proposal Submission Tool. They also do not need to make any references to a lidar vendor in the *Past Performance* Section of the Proposal Submission Tool. As appropriate, applicants may however wish to include information on their ability to manage large lidar acquisition projects with multiple partners or work with their funding authority to secure and commit the funding.

1.6 Question:

I am interested in possibly investing in the 3DEP program and I have a few specific questions:

- Does our company need to be State Certified or have a Registered Surveyor (PLSS) for the State in which we propose to acquire data?
- Is this a requirement per State or is each State different?
- Does there have to be a partnership agreement with another private firm or can one private entity take on the entire task of a specific AOI if they have the capability?

1.6 Response:

Proposals are invited from applicants who wish to propose a partnership with 3DEP to fund lidar data acquisition and the creation of lidar derived elevation products. Applicants may fund an acquisition project through the USGS Geospatial Products and Services Contract or they may request 3DEP funds to apply towards a lidar data acquisition project where the requesting partner uses their own contracting vehicle. Federal agencies, state and local governments, tribes, academic institutions and the private sector are eligible to submit proposals. The Government will review proposals based on the project's alignment with the evaluation criteria identified in section VI.A. of the BAA.

Your question suggests that you would be proposing to use your own contract vehicle. While the BAA itself does not contain language that specifically addresses the certification requirements, submission of a proposal includes a technical proposal and reference to past performances. During the evaluation period the evaluation team would verify that a company proposing to do work on behalf of 3DEP does have the appropriate expertise, license(s) and certification(s) to work in the state where they are proposing to acquire data.

With regards to the specific question, there is no requirement that a private firm must work with another private firm to assure acquisition of an entire project area. It is important to note that 3DEP is a partnership program. Each applicant (in your case a private firm) is requesting to enter into a partnership with 3DEP to acquire data over an area of mutual interest and benefit. Partners must bring a minimum of 50% of anticipated project costs to the table to be considered for an award. In FY17 partners offered up between 50% and 95% of the project costs. Cost share is one of the criteria against which proposals are rated. The larger the cost share, the higher the score for that criteria. All of the selection criteria are outlined in section VI *Proposal Review Information* of the current solicitation. The BAA does not designate specific project areas; as a national program we encourage proposals for any area of the country that does not yet have 3DEP compliant data (as noted in *Attachment F: 3DEP Status Graphic*). 3DEP encourages proposals and provides a higher score for those proposals that overlap with current 3DEP priorities as noted in Attachments C - E. All attachments are available as part of the full solicitation. In addition the attachments are available for download from the [3DEP BAA reference pages](#).

1.7 Question:

Is there a published scoring process?

1.7 Response:

The USGS does not reveal the specific points for each criteria, however Section VI. C (*Proposal Review Information, Evaluation Factors*) notes the following:

C. *Evaluation Factors*

The most important factors are project location, geographic overlap with areas identified by Federal agencies as areas of interest for lidar acquisition, project cost and cost share (funds contributed by applicants) and technical approach. These factors are equally valued. Secondary factors include areal extent and maturity of applicant's proposal and (maturity of) designated funding sources. Past performance is the factor with the least weight.

1.8 Question:

Can an applicant submit more than 1 BAA proposal?

1.8 Response:

Yes. There is no limit to the number of proposals that an applicant can submit. Each proposal will be evaluated independently against the criteria as noted in the BAA.

1.9 Question:

Is the partner commitment letter/attachment B the same this year as last year? I ask because I've had partners filling out that for several months and I used last year's form.

1.9 Response:

The content of FY17 Attachment B (*Validation of Proposed Funding Partners*) is the same as the content of FY16 Attachment E (*Validation of Proposed Funding Partners*). The header and footer have been changed to reflect the switch from Attachment E to Attachment B and provide the updated solicitation numbers. The FY16 solicitation numbers were G16PS00711 / G16AS00121, the FY17 numbers are G17PS00746, G17AS00116. The program encourages all applicants to use the updated materials, HOWEVER as the content of the *Validation of Proposed Funding Partners* has not changed, and in recognition of the fact that partners have been proactively working in their new proposals, the USGS can accept the FY16 version. We encourage you to manually update and initial the solicitation number in the header and footer to reflect the fact that an applicant is validating funding for an FY17 project.

Please make manual
changes to note that
document is associated with
current solicitation

US Geological Survey
Broad Agency Announcement for 3D Elevation Program (3DEP)
~~G16PS00711 / G16AS00121~~ G17PS00746 / G17AS00116
Validation of Proposed Funding Partners

Required for Proposal Submission

Applicant Information	First Name:	Last Name:
	Organization:	
	Project Title:	

Proposed Funding Partner Information	First Name:	Last Name:
	Organization:	
	This form acknowledges that our organization is a full and willing partner in the project referenced above. If accepted for award, our agency has proposed a good faith contribution of \$ _____ towards said project.	

☐ In addition to the acquisition cost, applicants utilizing the GPS contracts will be subject to a 5% assessment on the value of their contribution. This assessment covers the cost of contract management. The total cost of the project will include the acquisition cost plus the assessment.

Acknowledgement required, please read and check box

As stated in the proposal this contribution is:	<input type="checkbox"/> Guaranteed
	<input type="checkbox"/> Pending, with a final funding decision expected on _____ (Date: MM/DD/YYYY)

Signature of Funding Partner: _____

Date: _____

G16PS00711 / G16AS00121 Attachment ~~E~~ Applicant Validation of Funding Partners Page 1
G17PS00746 / G17AS00116 B

Please make manual
changes to note that
document is associated with
current solicitation

Please note that while we will accept a manually updated version of the *Validation of Proposal Funding Partners*, applicants MUST use the current version of Attachment A, the *Proposal Submission Tool*. The FY17 form contains important updated costs and deadlines.

2. Funding

2.1 Question:

What is the expected USGS federal budget for FY18 3DEP awards? Approximately how much is expected from FEMA, NRCS, and other federal partners? How do you expect the overall FY18 award amounts to compare to FY17 awards?

2.1 Response:

The FY18 Federal Budget has not yet been finalized and signed into law. Until the final budget is set, the 3DEP federal funding partners (including the USGS, FEMA, NRCS and others) are not yet in a position to determine the FY18 support for 3DEP. Over the past 3 years of the BAA (FY15, FY16 and FY17), the federal budget to support 3DEP BAA awards has remained consistent, approximately \$10M each year. Support for the program within the 3DEP federal community remains high; initial indications are that the collective federal community will once again be able to commit \$10M to support BAA awards in FY18. All projects are ranked against the criteria identified within the solicitation. Should the funding levels be reduced, the program will support those projects with the highest overall rankings.

In FY17, project awards ranged from \$13,760 to \$1,025,000, with an average of \$315,000. The larger project awards consistently align with the projects with the greatest areal extent. The evaluation criteria include an evaluation of the overall cost and the percentage of the funding being offered by the project funding partners. In FY17 partners offered to cover between 50 % and 95% of project costs. Applicants that offer to cover a large percentage of the overall cost of a project receive a high score for the cost share criteria.

2.2 Question:

With regards to the submission of FY18 BAAs, is there any way to ensure that task orders are awarded in sufficient time to assure acquisition during the 2018 spring acquisition season? Some state partners have trouble spanning state fiscal years.

2.2 Response:

FY18 BAA awards are based on the availability of funding. The USGS will evaluate and rank all proposals shortly after the October 20th submission deadline. If the USGS has fiscal authority to obligate funds (contingent upon the status of the FY18 Federal Budget), the USGS will begin to notify partners of the status of their awards beginning November 15, 2017. Notification letters are sent out in the following order:

1. Applicants requesting a Fall 2017 / Winter 2018 Acquisition
2. Applicants requesting a Spring 2018 Acquisition
 - a. The USGS recognizes that the spring acquisition season occurs earliest in the South; later in the North. With that in mind notification letters are prioritized based on geographic location. Applicants in the south are likely to receive notification of award before those in the northern states.
3. Applicants requesting a Fall 2018 / Winter 2019 Acquisition

IMPORTANT NOTE: For those choosing to use the Geospatial Products and Services Contracts (GPSC), the USGS cannot issue a task order until all project funding has been obligated to the USGS by means of a Joint Funding Agreement (JFA) for non-federal partners or Interagency Agreement (IA) for federal partners. Immediately following notification of a BAA Award, successful applicants will be contacted by the USGS National Map Liaison for your state to begin the agreement process. The USGS National Map Liaison will also facilitate a meeting with a project officer representing the GPSC to help finalize the

technical details and cost of your project. Partner participation is critical to assure the agreements to support the project are signed in sufficient time to meet the targeted acquisition dates.

IMPORTANT NOTE: Applicants requesting and receiving financial assistance by means of a cooperative agreement will be notified by a Contracting Officer to complete the award process. Additional paperwork may be required. Partner participation is critical to assure the award to support the project is completed in sufficient time to meet the targeted acquisition dates.

2.3 Question:

Regarding partner contributions, does a project need to have both state and local contributions to be considered for a BAA award?

2.3 Response:

No. Federal agencies, state and local governments, tribes, academic institutions and the private sector are eligible to submit proposals. An application may be submitted on behalf of 1 or more partners. While the program encourages applicants to work across levels of government to determine mutual areas of interest and seek additional funding sources to help support the project, there is no requirement to do so.

2.4 Question:

3DEP has noted an average project cost for lidar acquisition of \$226 per square mile. Does this estimate include the 5% GPSC assessment?

2.4 Response:

No. This is the FY18 average cost for the acquisition and delivery of products and services as noted in the Lidar Base Specification pages 13 – 15. <https://pubs.usgs.gov/tm/11b4/pdf/tm11-B4.pdf>. The figure is updated annually based on the cost of current projects and industry trends. It is important to note that this is an average national figure, in some geographic areas of the country the price will be higher and in some areas the cost to acquire the data will be lower.

In addition to the acquisition and delivery cost, applicants utilizing the GPSC contracts will be subject to a 5% assessment on the value of their contribution. This assessment covers the cost of contract management. The total cost of the project will include the acquisition cost plus the 5% assessment.

2.5 Question:

Could you explain if projects that are planned for acquisition prior to the selection of FY18 awards can still be considered for funding? Is there a limit for applying for supplemental funding to support past projects (e.g., acquisitions that are more than 1-5 years old?)

2.5 Response:

Each project is considered on a case by case basis, based on alignment with the criteria for selection as defined in Section VI. Proposal Review Information A. Criteria of the solicitation. 3DEP will not consider funding for any project that was acquired prior to the current version of the [Lidar Base Specification v1.2](#). Examples of projects that have been funded in the past include:

- The partner completed an acquisition which meets the 3DEP Standards (including the deliverables) as defined in the [Lidar Base Specification v1.2](#) but the data was not in the public domain; the 3DEP funding was requested to provide the data to the USGS to be made available to the public through [The National Map](#).
- The partner completed a lidar point cloud acquisition which meets the accuracy specs as defined in the [Lidar Base Specification v1.2](#), but did not include the generation of breaklines which results

in a hydro-flattened DEM. The partner requested funding to support the generation of breaklines / DEM and the delivery of the data to the USGS to be made available to the public through [The National Map](#).

- The partner funded or plans to fund a lidar project which meets the 3DEP Standards3DEP Standards (including the deliverables) as defined in the [Lidar Base Specification v1.2](#) and wants to report the recent / proposed acquisition as an “in-kind” match to request additional funds for an adjacent project. This is generally presented as a state or local partner who has acquired or plans to acquire Area A regardless, but requests funding through the 3DEP BAA to expand the acquisition to include areas A and B.



2.6 Question:

If an applicant for a cooperative agreement chooses to use the FY18 3DEP average \$226 cost per square mile to estimate overall project costs, will the award amount be increased / decreased to maintain the requested % contribution match once the final cost of the project has been determined? The final contract price the partner signs with a vendor may be higher or lower than the estimate.

2.6 Response:

For those applicants applying for a cooperative agreement, the final amount of your award is set and cannot be modified. The BAA evaluation team reviews your technical proposal as well as the estimated price to determine if the price represents a fair market value for the proposed acquisition. Applicants are encouraged to research lidar acquisition costs in advance of submitting a proposal. The Contracting Officer (CO) may request additional information or request to negotiate with the partner prior to award if the evaluation team has concerns that the \$226 does not reflect a realistic cost to acquire the data.

For applicants applying to use the [Geospatial Products and Services Contract \(GPSC\)](#), the final price of the project will be determined post award. The BAA evaluation team reviews the project cost in the proposal to determine if the price represents a fair market value for the proposed acquisition. The Contracting Officer (CO) may request additional information or request to negotiate with the partner prior to award. The award amount may be increased / decreased to reflect final project costs. The applicant may also choose to increase / decrease the project size to reflect the available funding. As noted in BAA Attachment A: Proposal Submission Tool, applicants may send a request to the GPSC prior to submission to obtain an Independent Government Cost Estimate (IGCE) for a specific AOI. However please note that the request must be submitted at least 30 days in advance of the proposal due date to assure sufficient time to generate the estimate.

2.7 Question:

Can you please further explain and / or provide examples of the following statement (from solicitation Section IV.B.2): *“State and local applicants requesting an award in the form of a cooperative agreement must contribute a minimum of 25% State and/or local funds to the collective applicant cost share. Federal partners are welcome participants in State / local applications but their contributions may not represent more than 75% of the applicant’s cost share.”*

2.7 Response:

This 25% rule only applies to state and local applicants applying for financial assistance in the form of a cooperative agreement. If an applicant is proposing to commit \$100,000 to the project (“Funding Partner Total” on Attachment A, page 9), a minimum of \$25,000 must come from a state or local partner. See the chart below for other examples. The 25% is based on the “Funding Partner Total”. The “Total Estimated Project Cost” and the “Funds Requested from 3DEP” are NOT considered in this calculation.

Total Estimated Project Cost	\$500,000	\$500,000	\$500,000
Funding Partner Total	\$100,000	\$200,000	\$300,000
25%Minimum Contribution from a State / Local Partner(s)	\$25,000	\$50,000	\$75,000
75% Maximum Contribution from a Federal Partner(s)	\$75,000	\$150,000	\$225,000
Funds Requested from 3DEP	\$400,000	\$300,000	\$200,000

2.8 Question:

Our state agency receives a portion of our funding from a federal source. Should this funding be listed as a “federal” contribution or should it be listed as a “state” contribution.

2.8 Response:

3DEP is a partnership program that relies on the collaborative efforts of federal, state, local, tribal, non-profit and private stakeholders to provide funding to support the program. The program tracks the percentage of federal and non-federal contributions. For accurate reporting we encourage applicants to list the full suite of funding partners who contribute funds to a project.

However, many state agencies receive a portion of their annual operating expenses from a federal source and use it as they see fit based on the authorities under which the funds were transferred to the state. An applicant must adhere to any specific instructions or conditions noted in the original agreement.

If the USGS will be receiving funds directly from the federal agency (via an IA) or will need to invoice the federal agency directly the applicant MUST list the federal agency as a funding partner and note the contribution as “federal” in the funding table of attachment A.

For applicants applying for cooperative agreements, applicants should be as explicit as possible to support the reporting requirements of the 3DEP; however, the minimum requirement is to list the agencies which are providing funds in direct support of the project. For example if a state Department of Natural Resources(DNR) is providing \$100,000 to support a project, the proposal can list the state DNR as the funding partner, regardless of whether the state DNR received any portion of their funding from a federal source. 3DEP would encourage the applicant to note any collaboration with federal partners in their project summaries

2.9 Question:

Is there an upper limit (dollar amount) for 3DEP BAA Awards?

2.9 Response:

The USGS does NOT set a maximum \$\$ amount for BAA Awards. In FY17, BAA awards ranged from \$13,760 to \$1,025,000. Because each project is a different size, both the partner contribution and the 3DEP award are project dependent. The average FY17 award was ~\$310,000. The common factor between all projects is the percentage of the project funds that a partner is willing to fund. The evaluation team looks at the percentage of the project that the partner is proposing to fund. The larger (%) the partner cost share, the higher the partner score for the cost share criteria. The USGS cannot fund more than 50% of a project. In FY17, BAA awards covered between 5% and 50% of the total cost of the project. The BAA award generally covers about 35% of the cost of the project.

Although project scores are based on % and not on actual \$\$ amount, the USGS does have a limited amount of funding to use to support BAA awards. 3DEP reserves the right to negotiate with the applicant if a project is worthy but exceeds the available funding. In several cases 3DEP and the partner have agreed to a smaller project to reflect available funding.

2.10 Question:

When you refer to “cost share”, does that mean the state contribution part?

2.10 Response:

“Cost Share” reflects the partner (applicant) funding. Applicants can be federal, state, localities, tribes non-profits or private industry. If you are a state agency applying for BAA funding then your state funds would be the state “cost share”. The funding package for each BAA Partnership Project consists of the “partner funding” and the “funds requested from 3DEP”. The funding partner(s) and their proposed contribution are listed in the Proposed Funding Table in *Attachment A: FY17 / 18 BAA Proposal Submission Tool*

2.11 Question:

We have applied for a state grant to cover a portion of our state cost share. Notification on this grant will not occur until November. Can we still submit a BAA proposal?

2.11 Response:

The initial due date for BAA submissions is October 20th. Proposals received by this due date will receive priority consideration for funding. The BAA remains open all year however subsequent awards are based on the availability of funding.

To meet the October 20th deadline, we suggest you submit the proposal and note the contribution as "Pending" (see example below) and provide the date when a decision on the funding will occur. The USGS reserves the right to hold the submission until such time as the certainty of the funding has been determined.

[illegible]

Hit TAB to complete input

3. SeaSketch, Geographic Areas of Interest (AOI)

3.1 Question:

Do partners get an alert when there is an overlapping AOI in [SeaSketch](#)?

3.1 Response:

The [Seasketch](#) application is not currently set up to provide alerts of overlapping AOIs. You are encouraged to check back regularly to check for opportunities to collaborate on lidar acquisition. You are also encouraged to contact your USGS National Map Liaison as noted on the [FY18 BAA resource page](#). The USGS National Map Liaisons are available to all potential applicants to help facilitate meetings between partners.

3.2 Question:

Is there a link for the Federal Emergency Management (FEMA) End of Year (EOY) plans? Are the new FEMA AOIs displayed in [SeaSketch](#)?

3.2 Response:

As of 8/22 the FEMA EOY projects have not yet been updated in SeaSketch. The FEMA EOY projects can be viewed and downloaded from the BAA reference page: <https://nationalmap.gov/3DEP/BAARReferenceMaterials.html>; look for Attachment E – Funding Partners Multi-Year 3DEP High Priority Areas for Data Acquisition 1. FEMA

3.3 Question:

Are you required to submit your project in [SeaSketch](#)?

3.3 Response:

No. The [3D Elevation Program](#) and the Interagency Working Group on Ocean and Coastal Mapping have established a system to share information about areas of interest and proposed and planned elevation projects. Federal, State and Local requirements are available at the NOAA sponsored SeaSketch site: U.S. Federal Mapping Coordination, *A Demonstration Site for Federal Mapping Data Acquisition* (<http://fedmap.seasketch.org>). This mapping site is comprehensive and provides a look at federal, state and local requirements and provides an opportunity for you to find potential funding partners. The tool is useful for BAA project formulation; however, there is no requirement for an applicant to enter their project in SeaSketch. Registration of your project AOI in SesSketch is not used as part of the BAA evaluation process.

3.4 Question:

Hi, I'm trying to understand the meaning of the two map categories on Attachment E of the FY18 BAA, the one for FEMA. There's "Fully Funded Seeking Adjacency" and "Partially Funded Seeking Partnerships". Can you clarify what is meant by "fully funded" and "partially funded"? Does fully funded mean FEMA is going to cover the entire cost of QL2 lidar acquisition? Or does it mean that FEMA will cover the entire 3DEP portion of a project?

3.4 Response:

"Fully Funded" means that FEMA is going to cover the entire cost of these projects, no additional funding partners are needed. These projects will be contracted through the GPSC, targeted acquisition is Spring 2018.

The "Fully Funded" areas are noted as "seeking adjacency". One of the BAA criteria as noted in Section VI. Proposal Review Information, A. Criteria of the solicitation is overlap with federal AOIs. Because these areas are fully funded, there is no need for nor is there an opportunity to increase your project score by submitting projects overlapping these areas. 3DEP will provide additional consideration to projects immediately adjacent to one of the FEMA projects to support the 3DEP goal of large regional acquisitions. If the adjacent project is to be contracted through the GPSC, 3DEP has the option to combine and potentially lower the overall cost. If an adjacent project is to be acquired by means of a cooperative agreement, there is still value in temporally consistent lidar data for regional studies.

Some projects are noted as "Partially Funded". A partially funded project is an indication that the federal regional office has some funds to support data acquisition over the designated AOI, but their funding level is not sufficient to cover the cost of the entire AOI. They are seeking state and local partners to help support the project. To explore partnership opportunities you are encouraged to view the project POC(s) available through [SeaSketch](#) or to contact your [USGS National Map Liaison](#). National Map Liaisons can help facilitate meetings between potential partners.

3.5 Question:

If the project information associated with an Area of Interest (AOI) in Seasketch has generic Point of Contact (POC) information, such as "USACE", how can we find out more about who to contact regarding potential collaboration opportunities?

3.5 Response:

The USGS encourages all submissions to Seasketch to include specific POC information. For federal projects that do not have this level of detail, the USGS will provide you with the contact information for the federal agency representative to the 3DEP Working Group (WG). These representatives work at the national level; if they are not in a position to provide direct assistance they may direct you to the appropriate regional POC. Inquiries on specific project AOIs can be submitted to gs_baa@usgs.gov for resolution and follow up.

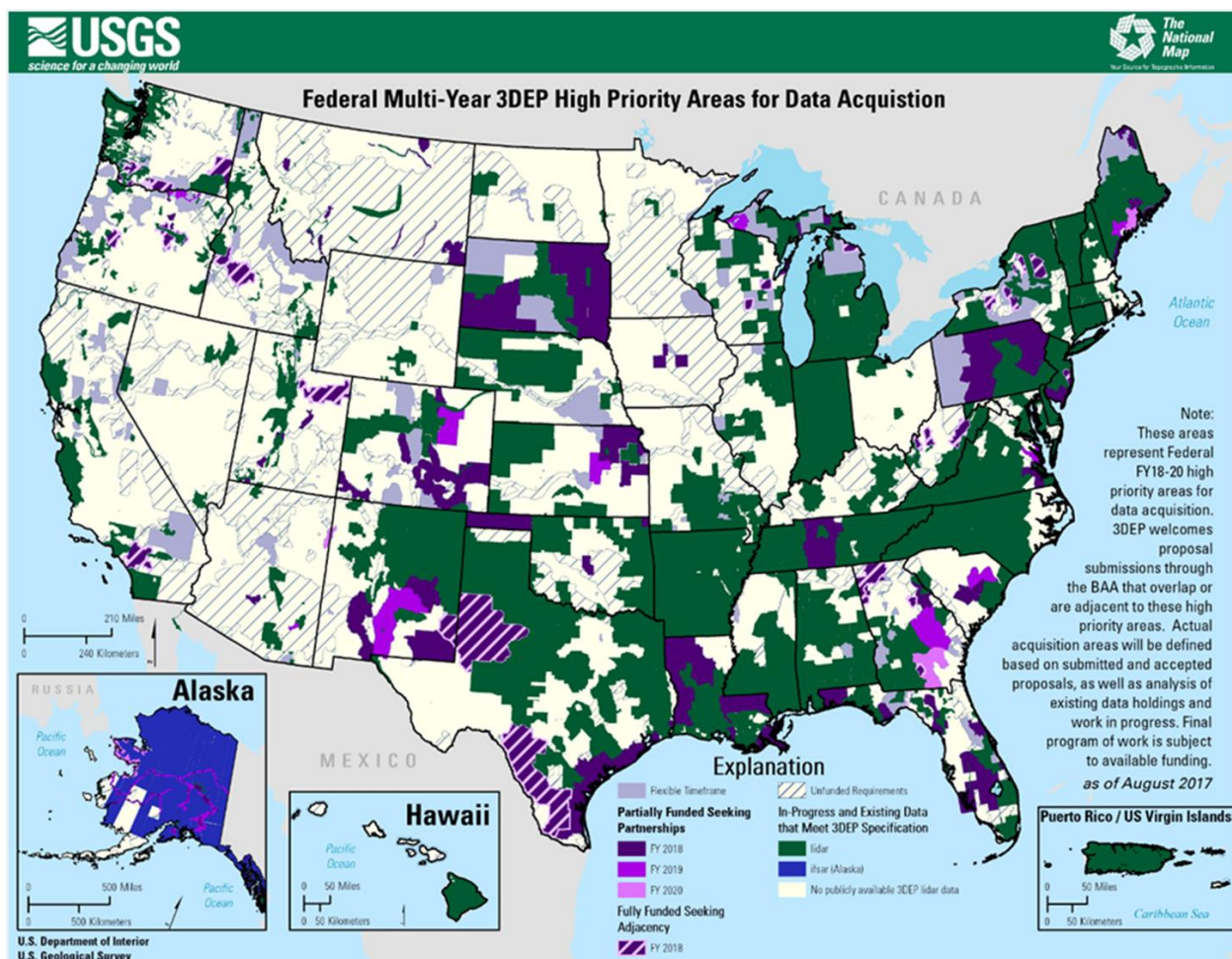
3.6 Question:

There are stream corridors shown on Sea Sketch that are labeled as USGS/NPS areas and cross our proposed AOI, can you provide clarification on those areas? Can those entities be brought in as partners?

3.6 Response:

The NPS has noted a requirement for lidar data over all NPS lands. For example, The "stream corridors" shown in CO are actually AOIs related to [National Trails](#). Both the Old Spanish National Historic Trail and the Continental Divide National Scenic Trail pass through Colorado. While we encourage applicants to

reach out to all Points of Contact (POCs) listed for Areas of Interest (AOIs) that intersect with their proposed project area, the NPS currently has limited funding to support lidar acquisitions. The multi-year map below provides information on agencies with funds to support their requirements. The multi-year map below provides information on agencies with funds to support their requirements.



3.7 Question:

Our agency has a suite of requirements, some have progressed to active planning, others are program needs to be addressed in future years. Is it permissible to upload all of these requirements to Seasketch or do we need to start the active planning process first?

3.7 Response:

3DEP encourages you to update all of your requirements to Seasketch. Although the priority is to enter and recognize high priority near term requirements (1 to 3 years) that would benefit from immediate collaboration, the program has a requirement for national coverage and is interested in partnership opportunities across the nation. To enter your requirements please use *The 3DEP BAA Public Areas of Interest Project Collector Tool*:

<https://survey.geoplatform.gov/index.php/survey/index/sid/782514/newtest/Y/lang/en#>

4. Technical, Lidar Base Specifications, Lidar Products and Services, Non-Conventional Technologies

4.1 Question:

I saw the announcement for the upcoming webinar's related to the 2017/2018 BAA for the 3DEP program and have a question I'm hoping you can help with; is the potential BAA funding available for aerial, mobile or terrestrial LiDAR collection efforts or is the funding for one type of LiDAR data collection (i.e. aerial)??

4.1 Response:

The goal of the BAA is to help achieve the 3DEP goal of nationwide coverage of high resolution elevation data in 8 years, beginning in 2016. To accomplish this goal, the USGS prefers to fund lidar surveys over a relatively large area to achieve economies of scale. Currently, the minimum preferred project size is 1,500 square miles, smaller projects are considered on a case by case basis:

- To fill in gaps in coverage
- Where the project AOI defines a complete geophysical or political unit
- For projects that represent significant cost share by the applicant
- When the proposed acquisition covers an area over which significant changes to the landscape have occurred
- If the proposed acquisition will provide critical information to support a significant scientific or societal concern

Although mobile terrestrial lidar has been proven to produce lidar point clouds that easily exceed the point density and accuracy requirements of 3DEP, the project footprints are so small that we would likely end up with a requirements to recollect these very small areas when contracting for lidar surveys over the surrounding area. The goals and objectives of 3DEP are currently best served through aerial surveys.

4.2 Question:

Is the 3D Elevation Program (3DEP) Broad Agency Announcement (BAA) funding available to support research in the use of drones to collect lidar data

4.2 Response:

The 3DEP Broad Agency Announcement (BAA) **does not** provide funding for research.

The 3DEP BAA is open to applicants who wish to propose a partnership for the **acquisition** of lidar data over designated areas in the US. The Solicitation is available through [FedBizOpps](#) or [grants.gov](#). The areas of interest are identified within the BAA and are also available on our [USGS 3DEP BAA Resource Page](#). The goal of the program is to acquire nation-wide data. As such the program prefers projects over 1500 square miles. The average project size from our FY16 solicitation (which resulted in awards in FY17) was ~ 4000 square miles. While we do not specify the technology, and applicants are welcome to submit proposals suggesting the use of alternate technologies; applicants should consider the limitations of drone technologies to support large scale acquisitions. In addition all acquisitions must adhere to the current [USGS Lidar Base Specification](#) except as noted in *Section II.D.3: 3D Elevation Program (3DEP) Opportunity Description, 3DEP Base Lidar Specifications, Project Deliverables and Upgrade Options, Exceptions for Non-Conventional Technologies* of the Solicitation.

3DEP recognizes the need for continued research as noted on page 25 of [The 3D Elevation Program Initiative – A Call for Action, Research Requirements](#). The research needs are NOT addressed through the BAA.

4.3 Question:

Are Lidar-derived products like bare earth model covered by BAA?

4.3 Response:

The BAA covers the acquisition, QA/QC and delivery of all products as defined in the “Deliverables” section of the [Lidar Base Specification](#) (pages 13 – 15). For applicants selecting to make use of the Geospatial Products and Services suite of contracts (GPSC), additional products and services are available however the full cost of the upgrades are the responsibility of the applicant.

4.4 Question:

Slide 36 on the FY17 National BAA webinar slides refers to consideration of proposals requesting non-conventional technologies. The slide makes reference to Geiger Mode and Single Photon lidar systems. Would inland bathymetry sensors (a) be considered a non-conventional tech and (b) be subject to consideration by 3DEP?

4.4 Response

The goal of the 3DEP program is **nation-wide terrestrial lidar** (with ifasr in Alaska). The BAA program funding is designated to support this goal. 3DEP recognizes the need for research on new technologies and the need to develop acquisition strategies that support a complete landscape modal which may require the acquisition of both terrestrial and bathymetric (inland, coastal) data.

- In FY17 the USGS provided funding to support several research projects that included the acquisition of inland bathymetry, however those projects **were not supported through BAA funding**. The BAA funding is set aside to support partnerships for the acquisition of terrestrial lidar.
- The USGS Geospatial Products and Services Contract (GPSC) can support the acquisition of bathymetric data. The team can help define project needs and can develop an independent government cost estimate (IGCE) for a project area.
- The USGS welcomes proposals through the BAA that include a requirement for both terrestrial and bathymetric data **HOWEVER** the USGS will only be in a position to offer partnership dollars to support the terrestrial component of the acquisition. Any costs associated with the addition of bathymetric data will be borne solely by the applicant.

4.5 Question:

For Flood Risk mapping projects (using FEMA funds) and using 3DEP cost share, is hydroflattening required for the 3DEP requirement even though it is not required for FEMA's Policy for Standards for Flood Risk Analysis and Mapping?

4.5 Response:

All data acquired in support of the 3D Elevation Program (3DEP) must adhere to the current [Lidar Base Specification](#) which notes a requirement for the delivery of a hydro-flattened bare-earth DEM. FEMA is a contributing partner to 3DEP and has adopted the Lidar Base Specification for all partnership projects.

4.6 Question:

Slide 36 on the FY17 National BAA webinar slides refers to consideration of proposals requesting non-conventional technologies. The slide makes reference to Geiger Mode and Single Photon lidar systems. Can you explain the conditions under which Geiger Mode and Single Photon Lidar would be considered?

4.6 Response:

The USGS has only begun to receive delivery of the data from our FY15 and FY16 provisional projects so are not yet in a position to make a global statement about the conditions for which the Geiger and SPL systems can provide data suitable for ingestion into the national 3DEP data holdings; we have been working very closely with our GPSC prime contractors who are working with the companies that utilize these systems on the continued evolution of these resource. Considerable progress has been made.

Section II. *3D Elevation Program (3DEP) Opportunity Description*, D. *3DEP Base Lidar Specifications, Project Deliverables and Upgrade Options*, 3. *Exceptions for Non-Conventional Technologies*, notes the following:

3. *Exceptions for Non-Conventional Technologies*

Geiger Mode and Single Photon lidar systems do not currently meet the [USGS Lidar Base Specification](#), as that specification was written to specifically address conventional lidar systems. Submissions for the use of these technologies will be considered and reviewed against the stated criteria as noted in section VI. A, with noted exceptions to the lidar base specifications. All exceptions to the lidar base specifications resulting from the use of non-conventional lidar systems will be documented, discussed and agreed upon prior to final award. Agreed upon exceptions to the Lidar Base Specifications will be noted in the award documentation.

With regards to the specification, a general statement is:

Data shall adhere to USGS Base Lidar Specifications V1.2 (*Heidemann, Hans Karl, 2014, Lidar base specification (ver. 1.2, November 2014): U.S. Geological Survey Techniques and Methods, book 11, chap. B4, 67 p. with appendixes,*) <http://dx.doi.org/10.3133/tm11B4>.) with the exception of those elements written specifically to address linear mode systems. All exceptions will be clearly articulated within the project task order.

4.7 Question

Will the USGS share their guidelines or Lidar Base Specification 1.2 modifications with regard to non-conventional lidar such that they can be incorporated into scopes of work for this upcoming fall/ winter acquisition season?

4.7 Response

The USGS has not yet published any updates to the [Lidar Base Specification 1.2](#) to address non-conventional lidar systems. For general information on the variations from the Lidar Base Specification we would encourage you to refer to *Remote Sens.* **2016**, 8(9), 767; doi:10.3390/rs8090767: *Evaluation of Single Photon and Geiger Mode Lidar for the 3D Elevation Program*: Table 3. Compliance to USGS Lidar Base Spec v1.2. It is important to note that the systems have continued to mature and evolve since the date of this publication.

For applicants proposing to use non-conventional systems and utilize the services of the GPSC, the USGS will consult with the applicant prior to final award to discuss the potential use of a non-conventional

technology. The USGS will explain all variations from the lidar based specification including any variations in the project deliverables. The USGS will discuss the results of known projects of similar scope and terrain. For BAA projects in which the USGS is investing, the final decision to use a non-conventional technology will be the responsibility of the USGS.

For BAA applicants proposing to manage the acquisition contract (financial assistance in the form of a cooperative agreement) the USGS would recommend that you consult with all potential vendors to discuss your project requirements and the potential use of their technologies to satisfy your requirements. As noted in question 4.6: *“The USGS has only begun to receive delivery of the data from our FY15 and FY16 provisional projects so are not yet in a position to make a global statement about the conditions for which the Geiger and Single Photon Lidar (SPL) systems can provide data suitable for ingestion into the national 3DEP data holdings.”* The technical proposal must detail the use of a non-conventional technology.

All systems continue to mature and evolve. For cooperative agreements the USGS will note current acceptable deviations from the lidar base specification in the award documentation. The USGS is available for technical consultation for any applicant who requires verbiage for inclusion in a RFP. Requests for assistance should be submitted to gs_baa@usgs.gov.

4.8 Question

Is the 3DEP Tiling Scheme (Albers Equal Area 1km x 1km tiles) required for FY17? If so, where can we download the grid.

4.8 Response

Section II. D.4 of the BAA notes the following:

4. 3D Elevation Program National Indexing Scheme

3DEP has been operating under an annual, opportunistic approach to data acquisition, acquiring lidar projects of varying sizes, scattered across the US. As a result, the national 3DEP elevation layer is subject to data gaps or unnecessary overlap between adjacent collections. To mitigate this problem, future collections within the lower 48 will be coordinated by using an Albers Equal Area 1km x 1km tiling schema. FY18 is a transition year; in FY19 the tiling scheme will be fully implemented. In FY18 the project boundaries of all BAA projects that propose to use the Geospatial Products and Services suite of Contracts (GPSC) will be converted to conform to the Albers Equal Area projection and extended to complete all 1km x 1 km tiles that intersect the project boundary. The data will be delivered in both the Albers Equal Area and the local projection as requested by the funding partners. All FY18 project costs associated with the implementation of the tiling scheme will be funded by 3DEP. No additional costs will be incurred by BAA applicants.

USGS is working on the implementation details of the tiling scheme. Once all issues have been resolved the tiling scheme will be made available for download through our USGS web pages.